



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/602,778	06/23/2000	Cynthia C. Bamdad	M1015/7002 TJO	9746

7590 05/05/2003

Timothy J. Oyer
c/o Wolf, Greenfield & Sacks, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, MA 02210-2211

EXAMINER

COUNTS, GARY W

ART UNIT	PAPER NUMBER
----------	--------------

1641

15

DATE MAILED: 05/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/602,778

Applicant(s)

BAMDAD ET AL.

Examiner

Gary W. Counts

Art Unit

1641

-- **Th MAILING DATE of this communication app ars on th cover sheet with the correspond nce address --**

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-8, 13-15, 18-70, 72, 76, 78-181, 185-190, 192 and 205-226 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 3-8, 13-15, 18-70, 72, 76, 78-181, 185-190, 192 and 205-226 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Status of the Claims

Claims 1, 2, 9-12, 16, 17, 71, 73-75, 77, 182-184, 191 and claims 193-204 have been cancelled. Claims 3-8, 13-15, 18-70, 72, 76, 78-181, 185-190, 192 and 205-226 are pending. However, claims 39-59, 172-181, 183-190 and 192 depend from a canceled claim (1). For restriction purposes claims 39-59, 172-181, 183-190 and 192 are considered cancelled claims. It is recommended that the claims be amended to show proper dependency or be cancelled.

Election/Restrictions

Because of the amendment filed March 11, 2003 and upon reconsideration of the claims, restriction thereof is necessitated as follows.

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

Claims 39-59, 172-181, 183-190 and 192 depend from a canceled claim (1). For restriction purposes claims 39-59, 172-181, 183-190 and 192 are considered cancelled claims. It is recommended that the claims be amended to show proper dependency or be cancelled.

- I. Claims 3-5, 6-8, 13-15, 18-38, 61-70, 206, 213-226, drawn to methods for determining immobilization of a colloid particle relative to a non-colloidal structure, classified in class 436, subclass 523.

Art Unit: 1641

- II. Claim 72, drawn to a method for determining immobilization of a colloid particle relative to a non-colloidal structure, classified in class 436, subclass 526.
- III. Claims 76 and 78-84, drawn to methods for determining immobilization of a colloid particle relative to a non-colloidal structure, classified in class 436, subclass 164.
- IV. Claims 85-103, drawn to a method comprising signaling a first biological agent to a second biological agent with a plurality of signaling entities, classified in class 435, subclass 7.1.
- V. Claims 104-117, drawn to a method comprising determining protein/ligand interaction, classified in class 530, subclass 387.1
- VI. Claims 118-124 and 125, drawn to method colloids interacting with a cell surface molecule and a composition comprising an electrode, classified in class 204, subclass 290.
- VII. Claims 126-128, drawn to a method comprising recruiting an electronic signaling entity to an electrode using a magnetic material, classified in class 435, subclass 7.2.
- VIII. Claims 129 and 130, drawn to an article defining a surface, and a ligand suspected of interacting with a protein and an electoractive entity each immobilized relative to the surface, classified in class 435, subclass 285.2.
- IX. Claims 131-134, drawn to an article comprising a first biological agent capable of binding to a second agent, classified in class 435, subclass 7.1.

Art Unit: 1641

- X. Claims 135 and 136, drawn to an article defining a surface, and a self assembled monolayer comprising a mixture of a first molecular species and a second molecular species, classified in class 435, subclass 173.4.
- XI. Claims 137-149, 159 and 160, drawn to a composition, comprising a first molecule and one or more signaling entities attached to a solid support, wherein said first molecule is a ligand capable of interacting with a cell-surface receptor or protein,, classified in class 424, subclass 130.1.
- XII. Claims 150-158 drawn to a composition, comprising a first molecule, a second molecule and a third molecule attached to a solid support, classified in class 424, subclass 178.1.
- XIII. Claims 161 and 162, drawn to an article comprising a metal support constructed and arranged to support the growth of cells on a surface, classified in class 422, subclass 186.05.
- XIV. Claim 163, drawn to a composition comprising a colloid particle, a signaling entity immobilized relative to the colloid particle; and a protein immobilized relative to the colloid particle, classified in class 424, subclass 184.1.
- XV. Claims 164-169, drawn to a species comprising a polymer or dendrimer carrying a plurality of signaling entities adapted for linkage to a biological or chemical agent, classified in class 424, subclass 78.1.

XVI. Claims 170-171, drawn to an article comprising a colloid particle immobilized relative to a glutathione derivative and at least one signaling entity, classified in class 530, subclass 332.

XVII. Claims 205, 207-212, drawn to methods for determining immobilization of a colloid particle relative to a non-colloidal structure, classified in class 436, subclass 518.

2. Inventions I-XVII are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case, the magnetic particles and the colloid particles of claims of Groups I-III and Group XVII are not required by the claims of the other groups. The signaling of a first biological or chemical agent to a second biological or chemical agents with a plurality of signals of claims 85-103 of Group IV are not required by the claims of the other groups. The determining protein/ligand interaction of claims 104-117 of Group V are not required by the claims of the other groups. The solution comprising colloids capable of interacting with a cell surface molecule of claims 118-124 and 125 of group VI are not required by the claims of the other groups. The recruiting of an electronic signaling entity to an electrode using a magnetic material of claims 126-128 of Group VII are not required by the claims of the other groups. The article defining a surface, and a ligand suspected of interacting with a protein and an electroactive entity of claims 129 and 130 of Group VIII are not required by the claims of the other groups. The first biological or chemical agent, capable of biological or chemical binding to a second

Art Unit: 1641

agent of claims 131-134 of Group IX are not required by the claims of the other groups.

The defining a surface, and a self-assembled monolayer formed on the surface of claims 135-136 of Group X are not required by the claims of the other groups. The composition of a first molecule and one or more signaling entities attached to a solid support of claims 137-149, 159 and 160 of Group XI are not required by the claims of the other groups. The composition of a first molecule, a second molecule and a third molecule attached to a solid support capable of interacting with a cell surface receptor or protein of claims 150-158 of Group XII are not required by the claims of the other groups. The metal support constructed and arranged to support the growth cells on a surface of claims 161 and 162 of Group XIII are not required by the claims of the other groups. The composition of colloid particle, a signaling entity immobilized relative to the colloid particle; and a protein immobilized relative to the colloid particle of claim 163 of Group XIV are not required by the claims of the other groups. The species comprising a polymer or dendrimer of claims 164-169 of Group XV are not required by the claims of the other groups. The colloid particle immobilized relative to a glutathione derivative of claims 170 and 171 of Group XVI are not required by the claims of the other groups.

With respect to Groups I-III and XVII. The groups are distinct and independent inventions. Group XVII requires the binding partner is adapted for linkage to non-colloidal structure or particle by an affinity tag/binding partner linkage and groups I-III does not require this limitation. Group II requires the entity adapted for linkage both to the colloid particle and to the non-colloidal structure in the presence of an enzyme having the ability to cleave the entity and candidate drug for moderation of activity of the

Art Unit: 1641

enzyme and the colloid particle carries an immobilized electroactive species and determining effectiveness of the drug candidate in inhibiting cleavage activity of the enzyme and Groups I, III and XVII do not require these limitations. Group III involves a molecular species linkable to the substrate enzyme and Groups I, II and XVII do not require this limitation.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, and the search required for one group is not required for other restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary W. Counts whose telephone number is (703) 305-1444. The examiner can normally be reached on M-F 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on (703) 305-3399. The fax phone numbers for

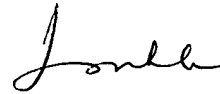
Art Unit: 1641

the organization where this application or proceeding is assigned are (703)308-4242 for regular communications and (703)3084242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0196.



Gary W. Counts
Examiner
Art Unit 1641
April 22, 2003



LONG V. LE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

5/2/13